DRAFT GUIDELINES FOR THE PREPARATION OF THE FINALIZED ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED PEMBINA VALLEY REGIONAL WATER SUPPLY PROPOSAL

BACKGROUND:

The Pembina Valley Water Cooperative is proposing to develop and operate a comprehensive water supply system designed as a long-term solution to the water supply problems experienced over the past number of years in the region of Manitoba known as the Pembina Triangle.

The proposal involves the withdrawal of up to 20 cubic feet per second of water from the Assiniboine River and diverting it to the Boyne River and then to the Stephenfield Reservoir. Once the water is in the reservoir it would be treated and distributed east to Carman and south to the Morden-Winkler area. According to the proposal, farmsteads and small communities in the western portion of the Pembina Triangle region between the Stephenfield Reservoir and Winkler would be serviced with treated water from the proposed pipeline system. A pipeline running easterly from Winkler would provide treated water to Plum Coulee. The easterly portions of the region will be serviced by water drawn from the Red River near Morris (up to 5 cubic feet per second). The Town and Rural Municipality of Morris, including Rosenort, would be supplied from an expanded treatment plant in the Town of Morris. The existing works at Letellier is proposed to be expanded as required to provide treated water to Altona, Gretna, St. Jean, and Emerson.

All environmentally significant developments, proposed or operating in Manitoba are regulated by the Manitoba Environment Act (Chapter E125, CCSM). Manitoba Regulation 164/88 under The Act sets out the types of development which are automatically subject to an assessment/licensing process prior to construction and operation. Water Development and Control projects of the proposed scale are identified as Class 3 Developments and are hence subject to the assessment/licensing process set out in Section 12 under The Act.

The following Draft Guidelines have been developed by a federal/provincial Technical Advisory Committee (TAC) and are being issued to the Pembina Valley Water Cooperative as reference for consideration for their environmental assessment work relating to the proposed water supply system.

Includes 10% post-consumer waste.

ASSESSMENT PROCESS:
The main components of the assessment process, as defined in The Act, shall be:

1. Upon receipt of the project proposal, Manitoba Environment notified the public through advertisements in the newspapers and has since filed a copy of the proposal in the public registries, with the Interdepartmental Planning Board, with Environment Canada and other federal departments. These documents have also been circulated to contacts within the various departments of the provincial government. The advertisements and circulation have invited written comments and objections regarding the proposal.

2. In response to concerns with, and objections to the proposed development and requests for a public hearing to assess the proposal and the concerns raised, the Minister of Environment has requested the Clean Environment Commission to convene a hearing and report back to him with their recommendations resulting from the public hearing with regard to the development.

3. Manitoba Environment is providing to the proponent and has made available to the public these Draft Guidelines for the Preparation of the Finalized Environmental Impact Statement (EIS). These Draft Guidelines were developed in consultation with a Technical Advisory Committee (TAC) of provincial and federal representatives. The public are also being provided with the opportunity to comment on the Draft Guidelines, in writing and/or through meetings.

4. The Minister will issue to the proponent and make available to the public, the Final Guidelines for the Preparation of a Finalized EIS after considering comments from the public, the Draft Guidelines and any other information which he considers relevant.

5. Following the Department's receipt of the EIS from the proponent, it shall be filed in the public registries, with the Interdepartmental Planning Board, with Environment Canada and other federal departments. These documents will also be circulated to contacts within the various departments of the provincial government. The availability of the document for review will be advertised and written comments and objections regarding the EIS will be invited.

6. If necessary, after reviewing the EIS, the TAC report on the EIS and any public comments received, the Minister may issue a deficiency statement(s) with instructions that the proponent conduct further assessment work.

7. When the Minister determines that the EIS is acceptable, he shall provide it, complete with copies of all relevant correspondence and documentation, to the Clean Environment Commission with a request that the public hearing be convened.

8. Following the public hearing, the Commission shall prepare a written report with conclusions and recommendations and submit it to the Minister, Manitoba Department of Environment.

9. Following receipt of the Commission Report, governmental decisions shall be made and announced in accordance with the requirements of the Manitoba **Environment Act** and regulations.

10. Pursuant to the Manitoba **Environment Act**, any licensing decisions by the Minister may be appealed to Lieutenant Governor in Council.

INTENT AND SCOPE OF THE ENVIRONMENTAL ASSESSMENT:

INTENT:

The intent of preparing the Environmental Impact Statement for the proposed Pembina Valley Regional Water Supply Proposal is to:

* describe the proposed development and the affected environment;

* identify potential environmental impacts of the proposed water supply system;

* identify the social, cultural, health and economic impacts directly related to the environmental effects of the proposed project;

* describe proposed actions to mitigate, eliminate or compensate for the negative impacts;

* propose mechanisms for monitoring of the environmental effects of the development once completed and any research that may be considered necessary;

It is intended that the Environmental Impact Statement shall incorporate into consideration and directly reflect, where appropriate, the Principles of Sustainable Development as contained in Towards a Sustainable Development Strategy for Manitobans and the emerging policies under the Land and Water Strategy.

SCOPE:

The Environmental Impact Statement shall include:

* justification of the need for the proposed water supply system in terms of current populations in the region and feasible development projections, a water conservation strategy for the region and any alternatives considered to accomplish the goals of the Pembina Valley Water Cooperative;

* a list of activities associated with site preparation, construction, operation, maintenance and the final disposition of all components of the project;

* a list of potential environmental impacts of the Pembina Valley Regional Water Supply Proposal, including measures intended to mitigate adverse impacts to the bio-physical environment, human health, present and currently planned resource and land and water use, and terrestrial and aquatic ecosystems;

* a list of potential social, cultural, health and economic impacts directly related to the environmental effects of the project;

* an explanation of the potential effect of the general influx of workers, equipment and materials on residents, land and resources affected;

* a discussion of the potential adequacy of measures proposed to mitigate adverse environmental impacts resulting from the project and to compensate for residual adverse effects; and

* a discussion of proposed plans and procedures for the transportation, handling and disposal of dangerous goods and hazardous materials to be used in the construction, operation and maintenance of the project and for any anticipated response mechanisms for potential environmental accidents and emergencies.

The geographic scope of the investigation shall include all those areas potentially impacted by the Pembina Valley Regional Water Supply Proposal. It has been identified that proposed alterations to the operating regime of the Shellmouth Dam and its reservoir may have environmental implications that may even extend into Saskatchewan. Further, municipal, industrial, domestic and agricultural users of water from the Assiniboine River and the aquatic flora and fauna in the Red River and Assiniboine River system may be impacted by the proposed development. Accordingly, the EIS shall include consideration of the full geographic scope of potential environmental implications of the proposed development.

INFORMATION AND ASSESSMENT REQUIREMENTS:

GENERAL:

The information and assessment requirements for the project will be categorized into several sections. These include:

1. Project Description
2. Environmental Setting
3. Pre-development Planning Review
4. Environmental Impact Assessment
5. Proposed Mitigation
6. Anticipated Residual Impacts
7. Proposed Monitoring and Research
8. Public Input Report
9. Technical References Used
10. Report Format

During the Assessment, the proponent is encouraged to work closely with the Department of Environment's Contact Person for the Project. The Contact Person will assist the proponent with any required interpretation of the EIS Guidelines and will provide on-going feedback to the proponent concerning the content and methodology of the assessment. In this way, any problems which may be revealed by the initial assessment work, which were not accounted for in the Guidelines, can be dealt with, and the proponent will have the opportunity to fill in deficiencies as the assessment is proceeding. The proponent is also encouraged to co-operate with local citizen and interest groups which may be affected by this development.

Where appropriate, information should be mapped or communicated using graphics. The scale of any graphic illustrations or maps and the detail of the information considered as part of the assessment and presented graphically in the EIS should be appropriate to the level of consideration that the same information was given with regard to the Pembina Valley Regional Water Supply Proposal assessment.

1. PROJECT DESCRIPTION:

The Environmental Impact Statement must describe the project proposal in detail. While describing the details of the proposal, activities that are considered to be potential sources of impact to the environment or human health should be identified. The overall description should include a discussion explaining the linkages between each of the project components.

The project description should include, but not be limited to, a description of the following:

* proposed alterations to water management/control along existing watercourses, waterbodies and related physical developments required to satisfy short and long term water supply needs for the proposal;

* a description and details of any instream water intake structures to be developed as part of the project;

* a description of design details, operation and maintenance of all associated water storage and treatment facilities that are part of the system including management of chemicals and any waste products and resultant wastewater handling facilities;

* the location and type of all access roads and related infrastructure;

* volumes of water to be stored at the reservoirs involved and size and routing of supply and distribution piping to be installed, including a description of construction details for all stream and road crossings;

* description of the proposed operation of each of the components of the project under all potential demand scenarios including the anticipated timing of water withdrawals from the source;

* extent of vegetation clearing and earthworks required for the Pembina Valley Water Supply Project and related developments;

* methods to be used to clear the sites and dispose of all cleared vegetation and earth fill;

* the timetable with respect to the development of the above components;

* decommissioning of any existing and proposed facilities;

In the description of the project and its operation, the EIS must point out activities that are potential sources of impact to the environment and/or human health. A list of potential sources would include:

* any remaining exploration and planning activities related to the Project;

* the general influx of workers, equipment and materials;

* clearing and site preparation required;

* operation or maintenance activities that potentially may affect the environment and human health including the potential for contamination of the system by pesticides, fertilizers or hydrocarbons;

* quarrying for materials to be used for construction purposes;

* transportation, handling and disposal of any dangerous goods and hazardous materials;

* construction of the physical components of the development; and

* the decommissioning of any or all of the project components.

2. ENVIRONMENTAL SETTING:

Environmental Assessment of a development proposal must demonstrate that there is an understanding of the base line environmental conditions within the geographic scope of the project; the environmental setting within which the development is intended to occur or impact upon. Subsequently, the Environmental Impact Statement must provide an overview description of the existing environment. The use of maps at a scale appropriate to the level of investigation or graphical representation is preferred as a means of communicating this information.

The list below provides the general areas of information required for assessment purposes. They are categorized into two groups: bio-physical environment and socioeconomic environment. If a specific area of information is not given consideration in the EIS for any reason or is not available, indication of why it was missed or how and when the data will become available is required. Changes to this base line information is the gauge to be used to judge potential impacts when reporting in the Impact Assessment section.

Bio-physical Environment:

* general description of climate, topography and landforms;

* the general distribution of vegetation types and any unique, rare or endangered plant species or plant communities;

* location, classification, hydrology and those existing developments impacting all surface waters in the project study area;

* wildlife including all invertebrate, reptile, amphibian, fish, bird and mammal populations, habitat and seasonal migration patterns, along with any unique, rare or endangered species and their habitat;

* aquatic resources, streams, rivers, lakes, flood plains, and their water quality, classification and flow regimes that may be potentially impacted;

* human demographics and settlement patterns;

Socioeconomic Environment

* industrial, agricultural and commercial activities in the study area and those potentially impacted outside the study area;
* rural, urban or recreational residential development including property ownership and location of residences;
* existing and anticipated hydro facilities;
* heritage resources including sites or objects of archaeological, paleontological, historical or architectural value;
* parks and ecological reserves, recreational or aesthetic resources, wildlife management areas;
* roads, airstrips and railroads;
* local economies and infrastructure including existing health care services, and community values;

3. PRE-DEVELOPMENT PLANNING REVIEW:

Alternatives to the Proposal:

Describe the extent of consideration and the weighting given to environmental issues during the deliberations over options for developing the water supply and storage capacity and selection of the Pembina Valley Regional Water Supply Proposal option.

Siting Selection Criteria:

Describe the study area considered, the criteria used to select potential sources of water, proposed routes and sites including the preferred sources, routes and sites within the study area and any alternatives dealt with. A description of the consideration given to the existing water sources outside of Manitoba's jurisdiction (inter-provincial and international) when considering the reliability of potential sources must also be provided.

4. ENVIRONMENTAL IMPACT ASSESSMENT

Provide information on all the environmental impacts associated with the Pembina Valley Regional Water Supply Proposal. Both positive and negative environmental impacts should be described and categorized as significant or insignificant, direct or indirect. Also, describe the time frames within which the impacts may occur and their magnitude.

All anticipated impacts should be described in terms of their location and severity. Where a range of impacts may result from an activity, these should be noted. "Worst case scenarios" shall be used for assessment purposes where applicable. All assessment conclusions shall be supported by credible information based on experience in Manitoba and elsewhere. Deficiencies in the information base should be clearly noted.

The environmental impacts should be related to, and assessed with respect to all environmental components identified in the ENVIRONMENTAL SETTING section and in relation to potential changes in climate. This should be include assessment of potential impacts on:

* the bio-physical environment including surface and ground-water, aquatic flora and fauna, terrestrial flora and fauna, soils, geology, ecological reserves, natural heritage resources and public health;

  - this assessment must include an evaluation of the impact of the construction and operation of the development on the well-being of the people, including workers and those living in the areas affected.

* the socioeconomic environment including:

  - social and cultural heritage, aesthetic and recreational resources including parks;

  - industrial, commercial, agricultural and residential development potentially affected by environmental change resulting from the operation of the project;

  - local economies, local and regional infrastructure, health-care facilities and community values

5. IMPACT MITIGATION

Provide information on how impacts identified in the ENVIRONMENTAL IMPACT section will be mitigated. These actions may include changes in design of the project or operation of the component facilities, siting of the various components, water control proposals, or compensation where mitigation measures are not feasible.

The Environmental Impact Statement is to specify planned preventative and mitigative measures regarding potential effects to human health, during both the construction and operation of the development.

6. RESIDUAL IMPACTS

Where potential impacts have been identified which cannot be prevented, eliminated or completely mitigated and no mitigation is contemplated, an explanation is required. Anticipated residual impacts should be described and categorized as significant or insignificant, direct or indirect, short or long term. Identify any compensation measures that could be initiated.

7. MONITORING AND RESEARCH

Describe the equipment to be used, the parameters to be measured, the methodology and frequency of measurement and the mechanism for reporting results for any proposed monitoring of environmental conditions potentially impacted by the project.

Describe any monitoring of the proposal that will be carried out relating to human health, if applicable, including the identification of health indicators and the methodology for monitoring these indicators.

Describe any research that may be undertaken to provide information relating to issues that are outstanding as a result of this environmental assessment.

8. PUBLIC INPUT

Describe the program of public involvement which has taken place, or will take place, including the result of such involvement, for each phase of the project assessment.

9. TECHNICAL REFERENCE

All assessment conclusions shall be backed up by credible technical information. This information shall include:

- the credentials of the experts contributing to the EIS and comprising the Pembina Valley Water Co-operative's project study team;
- technical studies of similar developments, facilities and processes which are built or operating elsewhere;
- original studies performed by qualified engineers or scientists, commissioned by the proponent specific to the proposed development;
- identification of facility design documents as prepared by qualified engineers as they become available; and
- scientific reports and papers on topics relevant to the proposed development such as the Manitoba Surface Water Quality Objectives.

All null conclusions must be supported by credible analysis and documentation.

10. REPORT FORMAT

The Environmental Impact Assessment Report (EIS) shall include an executive summary and be written with a minimum of technical terminology. Where highly technical portions are essential to the document, definitions or explanations shall be included. A glossary of terms shall also be provided. Deficiencies in scientific evidence should be clearly identified. This includes areas where there is no evidence specific to Manitoba.

The information in the document should make optimal use of maps, charts, diagrams and photographs for presentation. Maps and diagrams should be presented at a common scale, appropriate to represent the level of detail considered, and where ever possible to allow direct overlay for ease of reference. Specifically, maps indicating zones of impact on the land and water use and areas of habitat should be on maps of a common scale.